

5. The composition, by program, of the annual energy provided by demand-side resources;
 6. The composition, by supply resource, of the annual energy (including losses) provided by supply resources. Existing supply-side resources may be shown as a single resource;
 7. The values of the three (3) measures of financial condition identified in subsection (4)(A);
 8. Annual average rates;
 9. Annual emissions of each environmental pollutant identified pursuant to 4 CSR 240-22.040(2)(B)1; and
 10. Annual probable environmental costs.
- (D) A discussion of how the impacts of rate changes on future electric loads were modeled and how the appropriate estimates of price elasticity were obtained;
- (E) A description of the computer models used in the analysis of alternative resource plans; and
- (F) A description of any proposed load-building programs, a discussion of why these programs are judged to be in the public interest and, for all resource plans that include these programs, plots of the following over the planning horizon:
1. Annual average rates with and without the load-building programs; and
 2. Annual utility costs and probable environmental costs with and without the load-building programs.

Table 1-1
Summary of Compliance with Reporting Requirements for IRP Rule for Integrated Resource Analysis (4 CSR 240-22.060 (6))

Rule	Description	Location in Report
22.060 (6) (A)	Each alternative resource plan	Section 2.0, Table 2-1, Table 2-2, Appendix B
22.060 (6) (B)	Summary tabulation	Figures 2-2 through Figure 2-12
22.060 (6) (C)	Plots required	Figures 2-6, 2-7, 2-9, Table 2-1, Table 2-2, Appendix B, C, D, E
22.060 (6) (D)	Impact of rate changes on future loads	Volume II contains the load forecast. Low, base and high load forecasts developed in Volume II. Load analyzed as a critical uncertain factor as documented in Section 3.0 of this Volume
22.060 (6) (E)	Description of computer models	Appendix A
22.060 (6) (F)	Load-building program description	None planned

1. A discussion of the sequence and timing of the decisions represented by decision nodes in the decision tree and a description of the specific decision alternatives considered at each decision point; and
 2. An explanation of how the critical uncertain factors were identified, how the ranges of potential outcomes for each uncertain factor were determined and how the subjective probabilities for each outcome were derived;
- (B) Plots of the cumulative probability distribution of each performance measure for each alternative resource plan;
- (C) For each performance measure, a table that shows the expected value and the risk of each resource plan;
- (D) A plot of the expected level of annual unserved hours for the preferred resource plan over the planning horizon;
- (E) A discussion of the analysis of the value of better information required by section (8), a tabulation of the key quantitative results of that analysis and a discussion of how those findings will be incorporated in ongoing research activities;
- (F) A discussion of the process used to select the preferred resource plan, including the relative weights given to the various performance measures and the rationale used by utility decision-makers to judge the appropriate tradeoffs between competing planning objectives and between expected performance and risk; and
- (G) The fully documented resource acquisition strategy that has been developed and officially adopted pursuant to the requirements of section (10) of this rule.

**Table 1-2
Summary of Compliance with Reporting Requirements for IRP Rule for Risk Analysis and Strategy Selection (4 CSR 240-22.070 (11))**

Rule	Description	Location in Report
22.070 (11) (A)	Decision-tree diagram	Section 3.0 – 3.4
22.070 (11) (B)	Cumulative probability distribution plots	Figures 3-5 through 3-22
22.070 (11) (C)	Table of expected value and risk	Figure 3-5
22.070 (11) (D)	Annual unserved hours	Figure 4-9
22.070 (11) (E)	Value of better information	Appendix G
22.070 (11) (F)	Process to develop preferred plan	Section 4.0
22.070 (11) (G)	Fully documented resource acquisition strategy	Section 6.0

1.3.3 Followup to the 2007 IRP Unanimous Stipulation and Agreement (dated May 6, 2008)

In the 2007 IRP Unanimous Stipulation and Agreement dated May 6, 2008, Empire agreed to undertake the following tasks related to integrated resource assessment, risk analysis and strategy selection prior to or as a part of its next IRP filing:

- Integrated Resource Analysis: Empire’s analysis will include an evaluation of the potential load building implications for all existing and proposed demand-side